

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 1. (Currently amended) A circuit board comprising a mechanism for
2 provably disabling the circuit board, comprising:

3 a key area of a substrate of the circuit board, wherein the key area
4 comprises an identification mechanism which uniquely identifies the key area as
5 being originally attached to the circuit board;

6 one or more removal features in the substrate of the circuit board aligned
7 about the key area for breaking the substrate in a predefined boundary between
8 the key area and the circuit board to permanently detach the key area from the
9 circuit board, wherein the removal features include at least one of slits, slots,
10 gaps, channels, bores, or weakened or thinned parts; and

11 a signal trace on the circuit board, wherein a portion of the signal trace is
12 routed from the circuit board through the key area and back to the circuit board,
13 wherein the signal trace conducts a signal required for a normal operation of the
14 circuit board, and wherein the signal trace is permanently severed when the key
15 area is detached from the circuit board.

16 ~~A circuit board, comprising:~~

17 ~~a substrate which includes a specified area of the substrate that is used as a~~
18 ~~mechanism for provably disabling the circuit board, wherein the mechanism~~
19 ~~comprises:~~

20 ~~signal means for conducting a signal between the mechanism and the~~
21 ~~circuit board;~~

22 ~~separation means for facilitating detachment of the mechanism from the~~
23 ~~circuit board, wherein the mechanism is configured to be detached by breaking~~
24 ~~the substrate in the specified area; and~~
25 ~~identification means for identifying the mechanism;~~
26 ~~wherein the circuit board becomes at least partly non-functional if the~~
27 ~~mechanism is detached from the circuit board.~~

1 2. (Currently Amended) The circuit board of claim 1, wherein said
2 signal ~~means~~ trace comprises a wire trace.

1 3. (Cancelled)

1 4. (Cancelled)

1 5. (Cancelled)

1 6. (Cancelled)

1 7. (Currently Amended) The circuit board of claim 1, wherein a
2 portion of the key area is encapsulated in a hardening material to protect the key
3 area ~~said identification means is protected~~ from being easily manipulated.

1 8-33. (Cancelled)

1 34. (Currently amended) A circuit board assembly configured for
2 provably disabling the circuit board, the assembly comprising:
3 a circuit board comprising a substrate which includes a specified area of
4 the substrate that is used as a tab, wherein the tab comprises:

5 a proximate end connected to the circuit board;
6 a distal end opposite the proximate end; and
7 two opposing sides separated from the assembly by gaps;
8 an identification module situated on the tab, wherein the identification
9 module comprises an electronic identification chip, wherein the electronic
10 identification chip includes an identification code that uniquely identifies the tab
11 as being originally attached to the circuit board; and
12 a signal conductor extending from the circuit board ~~to~~ through the tab and
13 back to the circuit board and configured to convey a signal required for a normal
14 operation of the circuit board when the assembly is powered;
15 wherein the tab is ~~configured to be removed~~ by breaking the substrate in
16 the specified area; ~~and~~
17 wherein removal of the tab at or near the proximate end so as to separate
18 said identification module from the assembly causes the signal conductor on the
19 tab to be decoupled from the signal conductor on the circuit board; and ~~board.~~
20 wherein the signal conductor is permanently severed when the tab is
21 detached from the circuit board.

1 35. (Previously presented) The circuit board assembly of claim 34,
2 wherein the circuit board assembly cannot be powered if the signal conductor on
3 the tab is decoupled from the signal conductor on the circuit board.

1 36. (Previously presented) The circuit board assembly of claim 34,
2 wherein the circuit board becomes at least partially non-functional when the
3 signal conductor on the tab is decoupled from the signal conductor on the circuit
4 board.

1 37. (Currently Amended) The circuit board assembly of claim 34,
2 wherein the identification module further comprises a hologram.

1 38. (Currently Amended) The circuit board assembly of claim 34,
2 wherein the identification module further comprises a barcode.

1 39. (Currently Amended) The circuit board assembly of claim 34,
2 wherein the identification module further comprises a sequence of characters.

1 40. (Cancelled)

1 41. (Currently Amended) The circuit board assembly of claim 34,
2 further comprising an integrated circuit ~~connected to the signal conductor on the~~
3 circuit board, wherein the integrated circuit disables at least some operations of
4 the circuit board if the tab is decoupled from the signal conductor.

1 42. (Previously Presented) The circuit board assembly of claim 34,
2 wherein the signal conductor does not extend to the distal end of the tab.

1 43. (Currently amended) A circuit board assembly comprising:
2 a substrate which includes:
3 a specified area of the substrate that is used as a key; and
4 a signal conductor which conducts a signal required for a normal
5 operation of the circuit board, and wherein a portion of the signal
6 conductor is routed from the circuit board through the key and back to the
7 circuit board; and
8 ~~a specified area of the substrate that is used as a key, wherein the~~
9 ~~key is removably connected to the circuit board assembly and~~
10 ~~wherein the key comprises;~~

11 ~~an identification module; and~~
12 ~~a portion of said signal conductor;~~
13 wherein the key comprises an identification module, wherein the
14 identification module includes one of a barcode, a hologram, an etched
15 identification string, or an electronic identification chip that uniquely identifies
16 the key as being originally attached to the circuit board;
17 wherein the key is ~~configured to be removed~~ by breaking the substrate in
18 the specified area;
19 wherein while said key is removably connected to the circuit board
20 assembly a plurality of slits, slots, gaps, channels, bores, or weakened or thinned
21 parts that are defined between the circuit board assembly and said key; ~~and~~
22 wherein removal of the key from the circuit board assembly causes said
23 portion of the signal conductor on the key to be decoupled from the signal
24 conductor on the circuit board ~~assembly~~; and
25 wherein the signal conductor is permanently severed when the key is
26 detached from the circuit board.

1 44. (Currently amended) A circuit board comprising:
2 a substrate which includes a specified area of the substrate that is used as a
3 key, wherein the key is removably connected to the circuit board, and wherein the
4 key comprises:
5 a portion of a signal conductor configured to conduct a signal
6 between the key and the circuit board, wherein the signal is required for a
7 normal operation of the circuit board, and wherein the signal conductor is
8 routed from the circuit board through the key and back to the circuit
9 board; and
10 an identification module comprising an electronic identification
11 chip, wherein the electronic identification chip includes an identification

12 code that uniquely identifies the key as being originally attached to the
13 circuit board configured to identify the key;
14 wherein the key is ~~configured to be~~ removed by breaking the substrate in
15 the specified area;
16 wherein the key is removably connected to a first portion of the circuit
17 board but is separated from other portions of the circuit board by one or more
18 removal features, wherein the removal features include at least one of slits, slots,
19 gaps, channels, bores, or weakened or thinned parts~~plurality of gaps;~~
20 wherein the ~~gaps~~ removal features facilitate detachment of the key from
21 the circuit board; and
22 wherein the signal conductor is permanently severed when the key is
23 removed from the circuit board.
24 ~~wherein one or more functions of the circuit board become at least partly~~
25 ~~non-functional, including conduction of a signal by the signal conductor, if the~~
26 ~~key is detached from the circuit board.~~

1 45. (New) The circuit board assembly of claim 43,
2 wherein an integrated circuit on the circuit board detects the absence of
3 the key when the key is removed; and
4 wherein the integrated circuit disables at least some operations of the
5 circuit board if the key is removed.

1 46. (New) The circuit board assembly of claim 43, wherein the
2 electronic identification chip includes an identification code that uniquely
3 identifies the key.

1 47. (New) The circuit board of claim 44, wherein the identification
2 code can only be read from the electronic identification chip after the key is
3 detached from the circuit board.

1 48. (New) The circuit board of claim 44, wherein an integrated circuit
2 on the circuit board disables at least some operations of the circuit board if the
3 key is detached from the circuit board.

1 49. (New) The circuit board of claim 1, wherein the identification
2 mechanism includes one of a barcode, a hologram, an etched identification string,
3 or an electronic identification chip.

1 50. (New) The circuit board of claim 49, wherein the electronic
2 identification chip includes an identification code that uniquely identifies the key
3 area as being originally attached to the circuit board.

1 51. (New) The circuit board of claim 50, wherein the identification
2 code can only be read from the electronic identification chip after the key is
3 detached from the circuit board.

1 52. (New) The circuit board of claim 1, comprising an integrated
2 circuit which detects the absence of the key when the key is detached from the
3 circuit board.

1 53. (New) The circuit board of claim 52, wherein the integrated circuit
2 tests if the signal trace is intact and disables at least some operations of the circuit
3 board if the key area has been detached from the circuit board.

1 54. (New) The circuit board of claim 1, wherein said signal trace
2 comprises an optical trace.